

**INDEX**

**METALLURGIST**

**1963, Nos. 1-12**



**METALLURGIST**

1963, Nos. 1-12

A translation of Metallurg

- Aizenshtein, M. D., see Demidovich, E. A. - 318  
Aksenov, I. N. Electrical Build-Up of Blooming Mill Rolls - 32  
Akulov, V. P., see Moshkevich, E. I. - 169  
Andon'ev, S. M., O. V. Filip'ev, and G. A. Kudinov. Increasing the Durability of the Blast-Furnace Well (contribution to the Discussion of the Design and Durability of the Hearth and Well of Blast-Furnaces) - 296  
Andreev, E. I., see Malikov, K. V. - 521  
Andreyuk, L. V. and I. S. Litvak. A Computer Calculates the Rolling Parameters - 271  
Andreyuk, L. V. Rolling of Heavy-Weight Ingots on the Slab Mill - 315  
Andreyuk, L. V. and M. I. Igon'kin. A Device for Compensating Misalignment of the Rolls on a Blooming Mill - 424  
Antipenko, G. I. Reducing the Sulfur Content of Electric Steel - 348  
Anufrienko, N. The Urgent Problem of Metallurgists is the Constant Improvement of Working Conditions - 188  
Ayukov, A. S. Burning of Tuyeres - 10
- Babanin, A. I., see Kudrin, E. A. - 455  
Balabin, N. and N. Romanov. Person with an Inquisitive Mind - 373  
Baraev, S. V. Laboratory for Protection and Safety Techniques at the Nizhni Tagil Metallurgical Combine - 231  
Baranov, Yu. I., N. L. Kostousov, and V. A. Minyaev. Roller Tearing Machine - 135  
Baranov, Yu. I., N. P. Kostousov, A. A. Minyaev, and S. P. Shirikov. Magnetic Relayer for Sheet Bars - 275  
Battalov, B. F. and S. P. Nekipelov. Millionaire - 161  
Bedrik, I. A., see Varshavskii, V. L. - 206  
Beisbein, A. D. and B. M. Rotmistrovskii. Mechanization of Agglomerate Sampling - 252  
Beitel'man, A. N., see Svistunov, A. M. - 306  
Belomestnov, K. A. and A. V. Inoshevskii. Work has become Easier - 93  
Belotserkovskii, L., see Izmailov, A. - 460  
Belyaev, S. L., see Bitner, E. F. - 91  
Benyakovskii, M. A., V. I. Sedov, and G. M. Toropov. Mastering the Operation of Plate Rolling on the 2800 Mill - 25  
Benyakovskii, M. A., O. A. Mel'nikov, L. N. Chukhlova, and S. K. Glukhov. An Increase in the Surface Quality of Hot-Rolled Strip - 223  
Beremblyum, G. B., see Troitskii, V. N. - 346  
Berman, E. E. and V. S. Vasil'chenko. Organization of Production Administration at the Plant - 504  
Bibishev, V. P. The Scope of the Chemical Industry - 516  
Bitner, E. F., A. F. Lavrent'ev, and S. L. Belyaev. Increasing the Service Life of Spindles - 91  
Bogachev, S. I., see Vasil'ev, A. N. - 442  
Bolotov, O. P., see Varnavskii, I. N. - 412  
Borisenko, V. G. Experience in the Production of Large Transformer Sheets - 495  
Bornatskii, I. I. and N. A. Tereshchenko. Development of Oxygen-Converter Production of Steel - 193  
Bratchenko, V. P., see Kholzakov, V. I. - 341  
Brodskii, Ya. Forum of Young Metallurgists - 551  
Broit, S. M. and N. Ya. Trusov. Burning-In a Furnace Hearth with Fine-Grain Magnesite - 19  
Bryunetkin, M. G., A. N. Giss, I. N. Kicha, V. S. Shotin, and V. F. Kropachev. Use of Ground Powder in the Repair of Open-Hearth Furnace Bottoms - 174  
Burylichev, G. I., V. P. Kudel'kin, and L. G. Saksonov. Use of Lightened Molds - 75  
Bychek, P., see Gavshin, P. - 230  
Bystrov, S. N. Production of Semikilled Steels in Indian Plants - 539
- Chechuro, A. N., see Volovik, G. A. - 430  
Chekanovskii, M. L., see Zhuravlev, V. S. - 255  
Chekurov, V. I., see Ivanenko, A. Ya. - 253  
Chernakov, M. G., see Serebryakov, V. A. - 11  
Chemikov, V. A., see Kotrovskii, M. M. - 249  
Chernikhov, V. S., see Kagan, I. S. - 362  
Chernov, N. N. and I. T. Tkach. Analysis of the Operation of Blast-Furnace Mills of the Pridneprov's Sovharkhoz Working at Various Levels of Forcing - 390  
Chemova, A. V., see Fradin, M. D. - 543  
Chuchko, S. G. and K. Ya. Romanov. An Increase in the Productivity of the 350 Staggered Mill - 27  
Chuiko, N. M. and V. B. Rutkovskii. Vacuum Treat-

- ment of Steel in the Ladle While Blowing with Inert Gases - 355
- Chukhlova, L. N., see Benyakovskii, M. A. - 223
- Davydenko, G. Letter to the Editor - 120
- Degtyarev, E. I. They Were First - 151
- Demchenko, V. P., see Protasov, N. F. - 419
- Demidovich, E. A., see Veisbein, A. D. - 267
- Demidovich, E. A. and M. D. Aizenshtein. Delivery of Railroad Rails by Theoretical Weight (*On the Order of a Discussion*) - 318
- Densisov, V. G., see Vainshtein, O. Ya. - 165
- Dergach, A. Ya., see Kirvalidze, N. S. - 31
- Deryugin, I. S. Frontiers of the Seven-Year Plan - 228
- Dikalov, A. I., A. V. Leonova, and D. A. Storozhik. New Construction of the Charge Distributor - 344
- Dikalov, A. I., A. V. Leonova, and D. A. Storozhik. Increasing the Durability of the Charging Apparatus - 435
- Diomidov, B. B., see Litovchenko, N. V. - 554
- Dolmatov, F. and A. Komanovskii. Experience from Operating the Slabbing Mill at the "Zaporozhstal" Plant - 415
- Dolmatov, F. M., F. A. Evtushenko, and Yu. V. Zagorko. Reconstruction of a Slabbing Mill and Increase in the Production of Slabs - 492
- Dolmatov, V. A. and A. B. Glovatskii. Desulfurization of Iron Outside the Furnace - 434
- Domoradskii, V. N. Increasing the Durability of the Molds - 211
- Donets, V. I. New Method of Drying Wire in Coils - 458
- Dronyaev, V. A., see Lyskov, E. P. - 158
- Dunaeva, N. Innovators of a Young Plant - 328
- Duplii, G. D., see Gapich, V. I. - 213
- Efimov, E. A., V. N. Sapko, V. P. Grebenyuk, É. Ch. Plior, P. M. Shchastnyi, F. A. Ksenzuk, D. I. Shirinskii, and V. I. Tolstykh. Fast Top Pouring of Rimming Steel into Molds with Ribbed Sides - 487
- Eftroimovich, Yu. E., see Vinogradov, V. M. - 257
- Élimelakh, R. Z. and N. P. Mershchii. Makeevka Metallurgical Plant - 117
- Eliosof, A. E. and A. M. Ofengenden. Spiral Method of Brickling Steel-Pouring Ladles - 76
- Emel'yanov, V. P. The Lining of Pipes with Vinyl Plastic - 93
- Emel'yanov, V. P. Roller Guides on the Cutting Unit - 136
- Emel'yanov, V. P. Convex Back-up Rolls on the Levelling Mill - 369
- Ermanovich, N. A., see Khasin, G. A. - 129
- Evchenko, G. I. and M. V. Terent'ev. Increasing Open-Hearth Productivity - 163
- Evstaf'ev, E. I. and P. S. Rubinskii. Petrovskii Plant - 116
- Fedin, V. P. and Yu. G. Ivanov. Guide Equipment for Continuous Billet Mills - 218
- Fedorov, A. Freak of Nature - 377
- Filip'ev, O. V., see Andon'ev, S. M. - 296
- Filippov, S. M., see Pertsev, M. A. - 1
- Filippov, S. M. On the Further Increase of Labor Productivity in Ferrous Metallurgy - 385
- Filisteev, E. Achievements of the Metallurgists of the Urals - 231
- Fomin, G. M., L. Ya. Lapshin, and A. L. Tarnavskii. Increase in the Diameter of Wire Rod for Rod Mills - 360
- Fradin, M. D. and A. V. Chernov. Adoption and Production of 25 m Railway Rails - 543
- Freidenzon, E. Z. and A. I. Kalinin. The Renovation of a Blooming Mill - 85
- Freidin, L. M., L. M. Rudakov, and I. I. Gorstein. Sintering Agglomerate with Varying Content of Anthracite Culm in the Fuel - 428
- Gaiduk, Yu. A., see Tulin, N. A. - 172
- Galemin, I. M. and A. L. Shatilin. Draining Iron from the Well at the Close of Blast-Furnace Operations - 4
- Galyan, V. S., D. G. Zhukov, N. V. Keis, S. T. Ushakov, R. M. Khairutdinov, and M. I. Shatalov. Improved Techniques for Melting Transformer Steel - 14
- Gamerstein, V. A., see Naidenov, A. A. - 496
- Gapich, V. I. and G. D. Duplii. Electric Welded Stainless Tubing Replaces Seamless - 213
- Gavrilyuk, L. Ya., see Kholzakov, V. I. - 341
- Gavshin, P. and P. Bychek. Let Us Mobilize Reserves - 230
- Gerasimenko, V. A. The Principal Trend - 242
- Giller, I., see Rozhkov, F. - 30
- Giss, A. N., see Bryunetkin, M. G. - 174
- Gladkii, D. F. Greater Attention to Problems of Automation - 276
- Gladkikh, A. N. and B. A. Stretsenko. Quality of Steel for Cold Heading - 320
- Glovatskii, A. B., see Dolmatov, V. A. - 434
- Glukhov, S. K., see Benyakovskii, M. A. - 223
- Gol'berg, V. Ya., see Konyushenko, A. T. - 451
- Gol'dfarb, E. M. and L. V. Legavets. The Operation of Blast-Furnace Air Heaters with Dilution by Preheated Blast - 102
- Golovkin, R. V., see Konyushenko, A. T. - 451
- Gorlov, S. M., see Martynov, O. V. - 532
- Gorstein, I. I., see Freidin, L. M. - 428
- Grebenyuk, V. P., see Efimov, E. A. - 487
- Gul'ev, G. F., see Krivchenko, Yu. S. - 72

- Gurskii, G. L. and K. M. Trubetskoy. Increasing the Production Capacity of Open-Hearth Furnaces - 483
- Gusev, A. V. Use of Borax for Packing Tap Holes - 77
- Gusovskii, A. An Installation for Continuous Steel Teeming - 79
- Gusovskii, A. Improving the Operation of Superpower Blast-Furnaces - 438
- Igon'kin, M. I., see Andreyuk, L. V. - 424
- Ilyukovich, B. M. Roll-Pass Design and Rolling of Special Angle No. 18-187A. - 422
- Inoshevskii, A. V., see Belomestnov, K. A. - 93
- Ishmatov, A. Life Requires This - 462
- Itskovich, G. M., N. I. Sautkin, and A. V. Larin. *The Rate of Solidification and Depth of the Liquid Phase in a Continous Ingot of Low-Carbon Rimming Steel* - 203
- Ivanchenko, F. K., see Lovchinovskii, E. V. - 274
- Ivanenko, A. Ya. and V. I. Chekurov. Gravimetric Autodosage of the Components of the Sinter Charge - 253
- Ivanov, Yu. G., see Fedin, V. P. - 218
- Ivashchenko, I. Ya., see Svistunov, A. N. - 306
- Izmailov, A. and L. Beilotserkovskii. The Working Experience of the Labor Protection Commission - 460
- Izotov, N. P., see Varnavskii, I. N. - 412
- Kablukovskii, A. F., see Vinogradov, V. M. - 257
- Kachan, P. A. and V. V. Kurganov. A Valuable Manual - 380
- Kagan, I. S. and V. S. Chernikov. Increase in the Diameter of Wire Rod for Rod Mills (Continued) - 362
- Kalinin, A. I., see Freidenzon, E. Z. - 85
- Kamenskii, S., see Nikolaev, V. - 90
- Kamyshev, G. N., see Varnavskii, I. N. - 412
- Karmishkin, A. F. Generalization of Experience in the Manufacture of Crystallizers - 312
- Katsnel'son, M. A. Certain Questions on Blast-Furnace Operation - 479
- Kazachkov, E. A., see Sviridenko, F. F. - 75
- Keis, N. V., see Galyan, V. S. - 14
- Khaikov, L. L., see Krisanov, A. F. - 371
- Khairutdinov, R. M., see Galyan, V. S. - 14
- Khasin, G. A., N. A. Ermanovich, and K. N. Pribytkova. Improving the Plastic Properties of High Chromium Steels - 129
- Khimich, G. L. and A. V. Tret'yakov. Modern Rolling Mills and Their Equipment - 264
- Kholzakov, V. I., V. P. Bratchenko, M. Ya. Ostroukhov, P. G. Lukin and L. Ya. Gavilyuk. The Effect of the Working Profile of the Blast-Furnace on the Distribution of Gas Streams - 341
- Kharebtov, E. and I. Trofimov. Toward Communist Labor - 149
- Khrustal'kov, L. A., see Tishchenko, O. L. - 69
- Khryukina, V. A., see Vainshtein, O. Ya. - 165
- Kicha, I. N., see Bryunetkin, M. G. - 174
- Kirvalidze, N. S., A. Ya. Dergach, and V. D. Samoilenko. Improvement in the Heating Conditions for Tube Billets - 31
- Kiryushkin, Yu. I., see Sviridenko, F. F. - 75
- Komandovskii, A. Z., see Yudin, M. I. - 498
- Komanovskii, A., see Dolmatov, F. - 415
- Konyushenko, A. T., R. V. Golovkin, V. Ya. Gol'berg, and E. D. Orlov. Radio-Frequency Welding of Straight-Seamed Tubes on the 6-32 Mill - 451
- Kordabnev, I. L. Increasing the Temperature of the Blast - 528
- Korotich, V. I. On the Formation of a "Bed" when Sintering Iron Ores - 293
- Korotkov, G. I., V. G. Kucherenko, A. E. Zakharov, T. M. Ovsyannikova, and M. I. Pankov. Removal of Ingot Feeder Head - 313
- Korotkov, V. The Introduction of the International System of Units in the USSR - 236
- Kossovskii, L. D. High-Accuracy Rolling - 177
- Kostousov, N. L., see Baranov, Yu. I. - 135
- Kostousov, N. P., see Batanov, Yu. I. - 275
- Kostyuchenko, M., see Satskii, V. - 83
- Kostyuchenko, M. I., see Satskii, V. A. - 126
- Kotrovskii, M. M., N. N. Urumbeglik, and V. A. Chernikov. Automation of the Process of Sintering Agglomerate - 249
- Koval'chuk, E. I. The Service of Refractories in an Open-Hearth Department - 489
- Krasnozhen, D. The Treatment of Reverse Water of the Purification Cycle with Stack Gases - 106
- Krestyaninov, V. F., see Tishkov, Yu. Ya. - 207
- Krisanov, A. F. Pneumatic Balancer for the Spindles of Tube-Rolling Mills - 225
- Krisanov, A. F. and L. L. Khaikov. Reconstruction of the Electropneumatic Distributors - 371
- Krishtafovich, P. D., see Protasov, N. F. - 419
- Krivchenko, Yu. S., A. P. Kudrina, G. F. Gul'ev, and E. F. Vit'. The Use of Quartz Sand for the Rammed Lining of Steel-Teeming Ladles - 72
- Krivenko, Yu. S., see Pogrebnoi, Yu. N. - 260
- Kropachev, V. F., see Bryunetkin, M. G. - 174
- Kruskal', M. S., see Kudrin, E. A. - 455
- Ksenzuk, F. A., see Efimov, E. A. - 487
- Kucherenko, V. G., see Korotkov, G. I. - 313
- Kudel'kin, V. P., see Burylichev, G. I. - 75
- Kudinov, G. A., see Andon'ev, S. M. - 296
- Kudrin, E. A., A. P. Likhedorov, M. S. Kruskal', and A. I. Babanin. Reconstruction of the Ceramic Re-cuperators of Soaking Pits - 455
- Kudrin, V. A., Yu. M. Nechkin, and B. P. Nam.

- Intensifying Operation of the Open-Hearth Furnace* - 201
- Kudrina, A. P., see Krivchenko, Yu. S. - 72
- Kulakov, I. I., see Tishchenko, O. I. - 69
- Kurdyumova, V. A., see Litovchenko, N. V. - 554
- Kurganov, V. V., see Kachan, P. A. - 380
- Kutsenko, L. G. Increasing the Durability of the Lining of the Troughs Used in the Tapping of Steel - 445
- Kuznetsov, M. I., I. I. Petrov, and A. I. Soskov. *Improvement of the Equipment at the Mouth of Blast-Furnaces* - 396
- Lapin, V. and B. Sergeev. *A Broad Road for all that is New and Progressive (Review)* - 32
- Lapshin, L. Ya., see Fomin, G. M. - 360
- Larin, A. V., see Itskovich, G. M. - 203
- Lavrent'ev, A. F., see Bitner, E. F. - 91
- Lavrent'ev, I. G. *A New Safety Socket* - 92
- Lebedeva, L. V. *The Latest in Rolling Mill Units at the Chelyabinsk Metallurgical Plant* - 178
- Legavets, L. V., see Gol'dfarb, E. M. - 102
- Lekhtik, A. *Vacuum Removal of Dust from Open-Hearth Furnace Flues* - 24
- Lekhtik, A. *Masonry of Dolomite Blocks for Open-Hearth and Electric Furnaces* - 446
- Lekontsev, Yu. A. and V. S. Nechaev. *Blast-Furnace Operation with the Utilization of Coal Oil* - 295
- Leonova, A. V., see Dikalov, A. I. - 344
- Leonova, A. V., see Dikalov, A. I. - 435
- Leporskii, V. V. *Thirtieth Anniversary of the Plant "Azovstal'"* - 336
- Lesenko, I. I., see Sviridenko, F. F. - 75
- Lever I. I. *New Heating Furnace Designs Abroad* - 548
- Liber, L. D. *Automatic Switching Off of the Conveyors when the Chutes become Clogged with Charge* - 66
- Liberman, M. Kh. *The Metallurgists are Studying* - 35
- Likhoradov, A. P., see Kudrin, E. A. - 455
- Likhov, V. K., see Zarochentsev, B. I. - 546
- Litovchenko, N. V. *Operation of Continuous Rod Mills at Soviet Plants* - 184
- Litovchenko, N. V., B. B. Diomidov, and V. A. Kurdyumova. *Roll Pass Design of Section Mills* - 554
- Litvak, I. S., see Andreyuk, L. V. - 271
- Litvinenko, D. L., P. M. Shchastnyi, and V. I. Yakushin. *Let Us More Widely Adopt the Production of Semikilled Steel* - 110
- Litvinenko, V. *Community Forms of Work at the Plant* - 507
- Lizunov, G. I. *An Insert through for the Main Furnace Gutter* - 105
- Lizunov, G. I. *Organization of Work in a Blast Furnace Mill in which Iron is Tapped Ten Times per Day* - 198
- Loiberg, I. Ya. and S. T. Ushakov. *The Melting of Stainless Steel in Large-Capacity Electric Furnaces* - 166
- Lomachenko, I. D. and D. P. Sherle. *The Production of Double Layer Sheet* - 222
- Lovchinovskii, É. V., A. P. Sichevoi, and F. K. Ivanchenko. *Modernization of the Automatic Holding Device for Billets* - 274
- Lubenets, I. A. *Results of the Twenty-Year Plan* - 146
- Lukin, P. G., Yu. A. Popov, and A. K. Shaposhnikov. *Production of Blast-Furnace Ferrosilicon* - 155
- Lukin, P. G., see Kholzakov, V. I. - 341
- Lyskov, E. P. and V. A. Dronyaev. *Increasing the Period of Service of the Rotors of the Exhaust Fans* - 158
- Maksyuk, I. Yu. *The Work of the Calkers* - 299
- Malikov, K. V., V. L. Pishvanov, E. I. Andreev, V. I. Ryn'kov, and P. I. Semavin. *Two Years Experience in the Operation of Blast-Furnaces with the Blowing of High-Sulfur Coal Oil* - 521
- Malinovski, V. G. and V. M. Orobtshev. *Improved Mixing of the Sinter Charge* - 65
- Malyi, V. *Technical Creativity of the Petrov Metallurgists* - 227
- Malyi, V. *Man of Creative Work* - 376
- Malysh, V. *Explorers of High-Speed Steelmaking* - 121
- Martynov, O. V., V. N. Ustyuzhanin, L. S. Nechaev, and S. M. Gorlov. *Smelting and Continuous Casting of 20 Steel into 280 X 320-mm Billets* - 532
- Matvienko, G. A. and M. A. Zalevskii. *Improvement of the Atmospheric Valves* - 64
- Mazurov, E. F. *Energy Losses in Arc Furnaces* - 541
- Medvedev, I. A., see Bel'gol'skii, B. P. - 469
- Mel'nikov, O. A., see Benyakovskii, M. A. - 223
- Mershchii, N. P., see Élimelakh, R. Z. - 117
- Mikhailenko, V. I. *A Modernized Optical-Acoustical Gas Analyzer* - 254
- Mindlin, I. G., see Sharadzenidze, S. A. - 269
- Mineev, P. *Bakal Siderites—Precious Metallurgical Raw Material* - 530
- Minyaev, A. A., see Baranov, Yu. I. - 275
- Minyaev, V. A., see Baranov, Yu. I. - 135
- Minyaev, V. A. *Clamps for Stripping and Removing Ingots* - 136
- Mirenetskii, M. L. *A New Method for Setting Up Rolling-Mill Rolls* - 368
- Mirenetskii, Yu. M., see Troshchenkov, N. A. - 365
- Mitin, V. I. *The Working Experience of the Operators of the 650 Mill at the Nizhne-Tagil Metallurgical Combine* - 322
- Molodanov, Ya. I. *Groove Design with Linked Combined Diamond Grooves* - 216
- Morozov, P. M., see Sokolov, V. A. - 367
- Moshkevich, E. I., A. N. Porada, and V. P. Akulo. *Electromagnetic Stirring in the Melting of Stainless Steel in Electric Furnaces* - 169

- Movshovich, V. S., see Troshchenkov, N. A. - 224
- Murdasov, A. V., and V. K. Pasechnik. Rational Characteristics of Polishing Wheels for Conditioning High-Alloy Steels - 423
- Nagovitsin, V. V., and V. P. Taratynov. A Technology for Producing Stainless Machine Steel Containing Selenium - 350
- Naidenov, A. A., V. A. Gamerstein. Increase in the Production of Cold-Bent Rolled Sections - 496
- Nakhaev, P. E., see Troitskii, V. N. - 346
- Nam, B. P., see Kudrin, V. A. - 201
- Nazarov, V. The Fires of a Young Plant - 140
- Nechaev, L. S., see Martynov, O. V. - 532
- Nechaev, V. S., see Lekontsev, Yu. A. - 295
- Nechkin, Yu. M., see Kudrin, V. A. - 201
- Nekipelov, S. P., see Battalov, B. F. - 161
- Nepechii, P. D. and S. A. Vol'skii. Ejector for Straightening Machines - 226
- Nikolaev, V. and S. Kamenskii. A New Control Circuit Cropping Strip - 90
- Nikolaev, V. A., see Polukhin, P. I. - 212
- Nikolenko, A. V. Durability of Long Mandrels on the Continuous 7-Stand Mill - 458
- Nolkunov, E. and A. Volovik. Improving the Production of Conversion Iron - 476
- Novikov, A. The Second Plenum of the Scientific-Technical Society of Ferrous Metallurgy - 40
- Novikov, A. L. Third Plenum of the Scientific Technical Department of Ferrous Metallurgy - 124
- Novikov, A. N., see Sokolov, V. A. - 367
- Ofengenden, A. M., see Eliosof, A. E. - 76
- Okhrimovich, B. P., see Tishchenko, O. I. - 69
- Olenich, N. The Latest and Most Advanced in Production - 326
- Opukhovskaya, G. V. The More Metal, the Richer the Motherland - 282
- Orechkin, L. M. On the Design of the Blast-Furnace Well - 526
- Orlov, E. D., see Konyushenko, A. T. - 451
- Orlov, N. E. Service of the Rotors in the 6500-II-1 Exhausters - 518
- Orobtsiev, V. M., see Malinovski, V. G. - 65
- Orzhevkhovskii, F. I. Safe Attendance of Blast-Furnaces and of the Air Blowers (Upon sudden cessation of the supply of blast to the furnace) - 109
- Ostroukhov, M. Academician M. A. Pavlov, Outstanding Scientist and Metallurgist - 38
- Ostroukhov, M. Ya., see Kholzakov, V. I. - 341
- Ovsyannikova, T. M., see Korotkov, G. I. - 313
- Pamyatnykh, Yu. L. Toward More Iron - 400
- Pankov, M. I., see Korotkov, G. I. - 313
- Pasechnik, V. K., see Murdasov, A. V. - 423
- Pashinskii, V. F. A Compound Nozzle for the Gun which Closes the Iron Tap Hole - 200
- Pasyuk, K. I., see Tishchenko, O. I. - 69
- Pertsev, M. A. The Striving of the Metallurgists to utilize Reserves - 289
- Petrov, I. I., see Kuznetsov, M. I. - 396
- Pertsev, M. A. and S. M. Filippov. Toward Further Increases in Ferrous Metallurgy Production - 1
- Pevsner, S. Esthetics and Culture in Metallurgical Production - 45
- Pevzner, S. Another Look at Esthetics in Industry - 189
- Pioro, E. Ch., see Efimov, E. A. - 487
- Pishvanov, V. L., see Mailikov, K. V. - 521
- Plechun, G. V. Everything New Born in Labor Goes Into Production - 448
- Podgrodetskii, A. A., Viranovskii, V. V. - 502
- Podkovyrkin, I. L., see V. S. Zhuravlev - 255
- Podnogin, I. E. Working Open-Hearth Steel in the Ladle with Molten Synthetic Slag - 440
- Podnogin, I. P., see Vasil'eva, A. N. - 113
- Podzerko, V. All Efforts Toward Increasing Labor Productivity - 99
- Pogrebnoi, Yu. N., D. I. Turkenich, and Yu. S. Kryvchenko. The Use of Oxygen Consumption Integrators in the Converter Shop - 260
- Polovchenko, I. G., see Volovik, G. A. - 430
- Polukhin, P. I., V. A. Nikolaev, L. B. Radyukevich, Yu. D. Zheleznov, and V. P. Polukhin. Increasing the Productivity of a 1200-mm Continuous Mill - 212
- Polukhin, V. P., see Polukhin, P. I. - 212
- Polushkin, V. P. Efficient Reduction Conditions on the Wide Strip 2500 Mill - 363
- Polyak, I. B. and E. V. Tret'yakov. Open-Hearth Steel Production - 556
- Popov, D. I. Working Experience with Units for Continuous Steel Casting - 308
- Popov, M. P. The Wide Introduction of Rolling to Negative Tolerances - 132
- Popov, Yu. A., see Lukin, P. G. - 155
- Porada, A. N., see Moshkevich, E. I. - 169
- Pozdeev, N. P., see Tulin, N. A. - 172
- Pozina, R. A., see Tret'yakov, A. V. - 33
- Pribytkova, K. N., see Khasin, G. A. - 129
- Pritykin, D. P. The Operation of an Electrovibrating Screen for Hot Agglomerate - 6
- Pritykin, D. P. Modernization of the Equipment of the Sintering Plant - 473
- Protasov, N. F., V. È. Stanov, V. P. Demchenko, V. A. Shiyan and P. D. Krishtafovich. Experience of Rolling Shapes SVP-17 and 27 with an Increased Wall Slope - 419
- Puzatov, E. S. Mechanization of the Delivery of Sheet for Galvanizing - 273
- Radyukevich, L. V., see Polukhin, P. I. - 212

- Rakhmilevich, A. G. Intensification of the Fight with Industrial Noise - 233
- Razumov, A. A. The Design of the Blast-Furnace Well (Contribution to the Discussion the Design and Durability of the Hearth and Well of Blast-Furnaces) - 159
- Reznikov, M. (Reviewer). "Ways to Reduce the Manufacturing Costs of Rolled Products," by B. P. Bel'gol'skii, I. A. Medvedev, and A. L. Starosel'skii -
- Rogulev, B. A. Slag Removal during the Melting Period - 352
- Romanenko, S. P. Work Organization in the Teeming Bay - 537
- Romanov, A. An Increase in the Productivity of Labor in the Production of Stainless Steel and Alloys - 417
- Romanov, K. Ya., see Chuchko, S. G. - 27
- Romanov, N., see Balabin, N. - 373
- Romashchenko, M. Research - 330
- Rostemberskii, A. V., A. I. Soldatkin, and N. P. Zaporozhets. The Use of Chalky Lime to Intensify the Sintering Process - 339
- Rotmistrovskii, B. D., see Beisbein, A. D. - 262
- Rotmistrovskii, B. M., see Beisbein, A. D. - 252
- Rotmistrovskii, B. M., see Veisbein, A. D. - 267
- Rozenfel'd, N. Mastering the Production of Economic Types of Welded Tubes - 453
- Rozhkov, F. and I. Giller. Propagation of the Experience of the Leading Workers to the Masses - 30
- Rubinskii, P. S., see Evstaf'ev, E. I. - 116
- Rudakov, L. M., see Freidin, L. M. - 428
- Rutkovskii, V. B., see Chuiko, N. M. - 355
- Rylov, I. A. A System of Master Remote Control of the Regulator of Blast Input - 62
- Ryn'kov, V. I., see Malikov, K. V. - 521
- Saksonov, L. G., see Burylichev, G. L. - 75
- Samoilenko, V. D., see Kirvalidze, N. S. - 31
- Samoylovich, S. D. Conveyor Transport of Burden Materials in Blast-Furnace Units - 58
- Samoilovich, S. D. Mechanized Storage of Raw Materials in Blast Furnace Mills and Sintering Plants - 246
- Sapko, A. I. Electrohydraulic Drive for Moving the Electrodes of Arc Furnaces - 16
- Sapko, V. N., see Efimov, E. A. - 487
- Saranskikh, I. In the Stock of the Seven-Year Plant - 142
- Sarukhanyan, Z. N. All Steel Workers Might Work Like This - 210
- Satskii, V. and M. Kostyuchenko. The Rolling of Round Sections on a Continuous Mill - 83
- Satskii, V. A. and M. I. Kostyuchenko. The Rolling of Angles on a Continuous Small-Section Mill - 126
- Sautkin, N. I., see Itskovich, G. M. - 203
- Sedov, V. I., see Benyakovskii, M. A. - 25
- Semavin, P. I., see Malikov, K. V. - 521
- Semenenko, P. P., see Zhuravlev, V. S. - 255
- Serebryakov, V. A. and M. G. Chernakov. Improvement of Working Conditions in the Sintering Mill - 11
- Sergeev, A. B., see Tulin, N. A. - 172
- Sergeev, B., see Lapin, V. (R) - 32
- Sergienko, A. The Hands of the Rolling Mill Operator - 324
- Shalygin, D. A., see Sharadzenidze, S. A. - 269
- Shapiro, M. M. Planning and Calculation of the Work of Rolling Mills - 133
- Shaposhnikov, A. K., see Lukin, P. G. - 155
- Sharadzenidze, S. A., I. G. Mindlin, D. A. Shalygin, and P. A. Tsereteli. Mechanization and Automation of the Tube Rolling Unit - 269
- Shatalov, M. I., see Galyan, V. S. - 14
- Shatilin, A. L., see Galemin, I. M. - 4
- Shatunov, S. F., see Svistunov, A. M. - 306
- Shchastnyi, P. M., see Litvinenko, D. L. - 110
- Shchastnyi, P. M., see Efimov, E. A. - 487
- Sheftel', N. Technical Progress in the Ferrous Metallurgy Plants of the Russian Soviet Federated Socialist Republic in 1963 - 52
- Sheftolovich, V. Revolving Semigantry Beam Crane - 333
- Shekhovtsov, S. T. Our Experience with Floor Repairs - 353
- Sherle, D. P., see Lomachenko, I. D. - 222
- Shirikov, S. P., see Baranov, Yu. I. - 275
- Shirinskii, D. I., see Efimov, E. A. - 487
- Shiyan, V. A., see Protasov, N. F. - 419
- Shor, V. I., see Yakushin, V. I. - 535
- Shotin, V. S., see Bryunetkin, M. G. - 174
- Shul'kin, M. L., see Vainshtain, O. Ya. - 165
- Sichevoi, A. P., see Lovchinovskii, E. V. - 274
- Simonov, V. I., see Vinogradov, V. M. - 257
- Simonov, V. I., see Vorob'ev, Yu. K. - 304
- Smolyarenko, D. A. Steel Production in the U.S.A. - 21
- Smorodin, A. I., see Troitskii, V. N. - 346
- Snegirev, Yu. B., see Trifonov, A. G. - 403
- Sokolov, S. Heroes of Our Time - 181
- Sokolov, V. A., A. N. Novikov, and P. M. Morozov. Surfacing of Rolls with Hard Alloys - 367
- Soldatkin, A. I., see Rostemberskii, A. V. - 339
- Solomakha, N. K. The Optimum Charge in Open-Hearth Furnaces - 353
- Solov'ev, V. F., see Zhuravlev, E. K. - 278
- Soskov, A. I., see Kuznetsov, M. I. - 396
- Spektor, A. N. and E. N. Yarkho. On the Efficient Design of the Hearth and Well of Blast-Furnaces - 196
- Stefanov, V. E., see Protasov, N. F. - 419

- Stetsenko, B. A., see Gladkikh, A. N. - 320  
 Storozhik, D. A., see Dikalov, A. I. - 344  
 Storozhik, D. A., see Dikalov, A. I. - 435  
 Sukhanov, A. More Active Participation in Industrial Management (Some Results of the Work of the Continuously Active Industrial Councils) - 152  
 Sviridenko, F. F., Yu. I. Kiryushkin, E. A. Kazachkov, and I. I. Lesenko. Hot Top with a Two-Layer Lining - 75  
 Svistunov, A. M., A. N. Beitel'man, I. Ya. Ivashchenko, and S. F. Shatunov. Improvement of Certain Elements of the Open-Hearth Furnace - 306
- Tarasov, F. P., see Tarasov, V. P. - 55  
 Tarasov, V. P. and F. P. Tarasov. A New Development in Charging Blast-Furnaces - 55  
 Taratynov, V. P., see Nagovitsin, V. V. - 350  
 Tarnavskii, A. L., see Gomin, G. M. - 360  
 Tatarinov, P. Ya. Every Third One, an Innovator - 281  
 Tatarinov, P. Ya. A New Unique Mill - 372  
 Teren'ev, M. V., see Evchenko, G. I. - 163  
 Tereshchenko, N. A., see Bornatskii, I. I. - 193  
 Tilik, V. T., see Troshchenkov, N. A. - 224  
 Tishchenko, O. I., B. P. Okhrimovich, Yu. Ya. Tishkov, I. I. Kulakov, L. A. Khrustal'kov, P. A. Vasilevskii, and K. I. Pas'yuk. New Method for Preparing the Hearths of Electric Arc Furnaces - 69  
 Tishkov, Yu. Ya., see Tishchenko, O. I. - 69  
 Tishkov, Yu. Ya., V. F. Krestyaninov, and P. A. Vasilevskii. The Packed Floor of the 190 ton Open Hearth Furnace - 207  
 Tkach, I. T., see Chernov, N. N. - 390  
 Tolstykh, V. I., see Efimov, E. A. - 487  
 Toropov, G. M., see Benyakovskii, M. A. - 25  
 Trapeznikov, A. P. and V. A. Uvarov. A Hydraulic Tilter - 95  
 Tret'yakov, A. V. and R. A. Pozina. The Effect of Pre-heating Rolls on their Life - 33  
 Tret'yakov, A. V., see Khimich, G. L. - 264  
 Tret'yakov, E. V., see Polyak, I. B. - 556  
 Trifonov, A. G., Yu. B. Snegirev, and E. V. Val'piter. The Thermal Regime of the Leading Furnace of the MMC - 403  
 Troitskii, V. N., P. E. Nakhaev, A. I. Smorodin, and G. B. Beremblyum. On the Reasons for the Air Heaters Getting Out of Order. - 346  
 Troshchenkov, N. A., V. T. Tilik, and V. S. Movshovich. The Quality of Trimming Strip Edges - 224  
 Troshchenkov, N. A. and Yu. M. Miren'skii. Durability and Operation of Rolling-Mill Rolls - 365  
 Troshchenkov, N. A., see Yudin, M. I. - 498  
 Trubetskoy, K. M., see Gurskii, G. L. - 483  
 Trusov, N. Ya., see Broit, S. M. - 19  
 Tsereteli, P. A., see Sharadzenidze, S. A. - 269
- Tsukanov, V. P. Modernization of the Transformers for the 5-Ton Electric-Arc Furnaces - 538  
 Tulin, N. A., N. P. Pozdeev, M. A. Yartsev, A. B. Sergeev, L. A. Zhivichkin, and Yu. A. Gaiduk. Commissioning an OKB-571-B Vacuum Induction Furnace - 172  
 Tulevskii, Yu. N., see Zhuravlev, V. S. - 255  
 Turkenich, D. I., see Pogrebnoi, Yu. N. - 260  
 Tyulebaev, V. G., see Zhuravlev, V. S. - 255
- Urumbeglik, N. N., see Kotrovskii, M. M. - 249  
 Ushakov, P. G. Providing Safe Working Conditions in Installations Employing Gas - 67  
 Ushakov, S. T., see Galyan, V. S. - 14  
 Ushakov, S. T., see Loiberg, I. Ya. - 166  
 Ustyuzhanin, V. N., see Martynov, O. V. - 532  
 Uvarov, V. A., see Trapeznikov, A. P. - 95
- Vainshtein, O. Ya., V. G. Denisov, V. A. Khryukina, and M. L. Shul'kin. Economies in Chromium in the Production of Chrome Steels - 165  
 Val'piter, E. V., see Trifonov, A. G. - 403  
 Val'vach, N. M. The Experience of the Railroad Shop of the Nizhne-Tagil Metallurgical Combine - 283  
 Varnavskii, I. N., G. N. Kamyshev, N. P. Izotov and O. P. Bolotov. An Increase in the Output of Converters and the Service Life of their Lining - 412  
 Varshavskii, V. L. and I. A. Bedrik. Rapid Packing of New Floors - 206  
 Vasil'chenko, V. S., see Berman, E. E. - 504  
 Vasil'ev, A. N., I. E. Podynogin, and N. S. Yudin. Kuznetsk Metallurgical Combine - 113  
 Vasil'ev, A. N., and S. I. Bogachev. Accelerated Teeming of Rimming Steel - 442  
 Vasilevskii, P. A., see Tishchenko, O. I. - 69  
 Vasilevskii, P. A., see Tishkov, Yu. Ya. - 207  
 Veisbein, A. D. and B. D. Rotmistrovskii. Mechanization of the Delivery of Deoxidizers to the Pouring Ladles of the Open-Hearth Shop - 262  
 Veisbein, A. D., E. A. Demidovich, and B. M. Rotmistrovskii. An Increase in the Productivity of the Three High Mill - 267  
 Vinogradov, V. M., Yu. E. Efroimovich, A. F. Kablukovskii, and V. I. Simonov. Programming and Automation of the Control of Steelmaking in the Arc Furnace - 257  
 Viranovskii, V. V. and A. A. Podgrodetskii. Improvement in Product Quality - 502  
 Vit', E. F., see Krivchenko, Yu. S. - 72  
 Volovik, A., see Nolkunov, E. - 476  
 Volovik, G. A., I. G. Polovchenko, and A. N. Chechuro. The Regime of Release of Smelting Products and the Processes of Desulfurization in the Hearth - 430

- Vol'skii, S. A., see Nepechii, P. D. - 226
- Vorob'ev, Yu. K. and V. I. Simonov. Intensification of Production of Structural and Tool Steels - 304
- Yakovlev, V. B. Certain Stages in the Development of World Converter Production - 466
- Yakushin, V. I., see Litvinenko, D. L. - 110
- Yakushin, V. I. and V. I. Shor. Improvements in the Teeming of Killed Steel - 535
- Yanchuk, M. Man of Inquisitive Mind - 501
- Yarkho, E. N., see Spektor, A. N. - 196
- Yartseev, M. A., see Tulin, N. A. - 172
- Yudin, M. I., A. Z. Komandovskii and N. A. Troshchenkov. Reconstruction of a 1680 mm Continuous Cold-Rolling Mill - 498
- Ydin, N. S., see Vasil'ev, A. N. - 113
- Zagorulko, Yu. V., see Evtushenko, F. A. - 492
- Zakharov, A. E., see Korotkov, G. I. - 313
- Zalevski, M. A., see Matvienko, G. A. - 64
- Zaporozhets, N. P., see Rostemberskii, A. v. - 339
- Zarochentsev, B. I. and V. K. Likhov. Production of Wire Rod from High-Speed Steel - 546
- Zhelezov, Yu. D., see Polukhin, P. I. - 212
- Zhivichkin, L. A., see Tulin, N. A. - 172
- Zhukov, D. G., see Galyan, V. S. - 14
- Zhuravlev, E. K. and V. F. Solov'ev. The Best Innovator of the Control and Measuring Instrument and Automation Shop - 278
- Zhuravlev, V. S., I. L. Podkovyrkin, P. P. Semenenko, Yu. N. Tuluevskii, V. G. Tyulebaev, and M. L. Chekanovskii. Automation of the Thermal Regime of Open Hearth Furnaces by the Use of Alpha-Indicators - 255
- Zlobinskii, S. Planning Production Costs - 506
- Zin'kovskii, M. M. Preventing Ejections of Metal and Slag from the Converter - 444
- Zudov, P. An Improvement of Working Conditions in the Rolling Shops of the Severskii Metallurgical Plant - 137

# METALLURGIST

A translation of METALLURG

Published by  
the Board of Governors of Acta Metallurgica.  
Distributed by Consultants Bureau

CONSULTANTS BUREAU ENTERPRISES, INC.  
227 West 17th Street, New York 11, N. Y.

Numbers 1-2

January-February, 1963

## CONTENTS

	P A G E	
	ENG.	RUSS.
NUMBER 1, 1963		
Toward Further Increases in Ferrous Metallurgy Production. M. A. Pertsev and S. M. Filippov . . . . .	1	1
IRON		
Draining Iron from the Well at the Close of Blast-Furnace Operations. I. M. Galemin and A. L. Shatilin . . . . .	4	4
The Operation of an Electrovibrating Screen for Hot Agglomerate. D. P. Pritykin . . . . .	6	6
Burning of Tuyeres. A. S. Ayukov . . . . .	10	10
Improvement of Working Conditions in the Sintering Mill. V. A. Serebryakov and M. G. Chernakov . . . . .	11	11
Contest for the Best Suggestion for the Charging Apparatus of Large-Capacity Blast-Furnaces . . . . .	13	12
STEEL		
Improved Techniques for Melting Transformer Steel. V. S. Galyan, D. G. Zhukov, N. V. Keis, S. T. Ushakov, R. M. Khairutdinov, and M. I. Shatalov . . . . .	14	13
Electrohydraulic Drive for Moving the Electrodes of Arc Furnaces. A. I. Sapko . . . . .	16	14
Burning-In a Furnace Hearth with Fine-Grain Magnesite. S. M. Broit and N. Ya. Trusov . . . . .	19	17
METALLURGY ABROAD		
Steel Production in the U.S.A. D. A. Smolyarenko . . . . .	21	19
Vacuum Removal of Dust from Open-Hearth Furnace Flues. A. Lekhtik . . . . .	24	21
ROLLED GOODS		
Mastering the Operation of Plate Rolling on the 2800 Mill. M. A. Benyakovskii, V. I. Sedov, and G. M. Toropov . . . . .	25	22
An Increase in the Productivity of the 350 Staggered Mill. S. G. Chuchko and K. Ya. Romanov . . . . .	27	24
Improvement in the Heating Conditions for Tube Billets. N. S. Kirvalidze, A. Ya. Dergach, and V. D. Samoilenko . . . . .	31	27
Electrical Build-Up of Blooming Mill Rolls. I. N. Aksenov . . . . .	32	28
The Effect of Preheating Rolls on their Life. A. V. Tret'yakov and R. A. Pozina . . . . .	33	29
The Metallurgists are Studying. M. Kh. Liberman . . . . .	35	31
Academician M. A. Pavlov, Outstanding Scientist and Metallurgist. M. Ostroukhov . . . . .	38	33
The Second Plenum of the Scientific-Technical Society of Ferrous Metallurgy. A. Novikov . . . . .	40	34

(Continued)

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

569

## CONTENTS (continued)

	PAGE	RUSS. PAGE
Moscow, VDNKh, 1962 . . . . .	42	36
Esthetics and Culture in Metallurgical Production. <u>S. Pevsner</u> . . . . .	45	37
<b>NEW BOOKS . . . . .</b>	<b>47</b>	<b>39</b>
 <b>NUMBER 2, 1963</b>		
Technical Progress in the Ferrous Metallurgy Plants of the Russian Soviet Federated Socialist Republic in 1963. <u>N. Sheftel'</u> . . . . .	52	1
A New Development in Charging Blast-Furnaces. <u>V. P. Tarasov</u> and <u>F. P. Tarasov</u> . . . . .	55	3
Conveyor Transport of Burden Materials in Blast-Furnace Units. <u>S. D. Samoylovich</u> . . . . .	58	6
A System of Master Remote Control of the Regulator of Blast Input. <u>I. A. Rylov</u> . . . . .	62	10
Improvement of the Atmospheric Valves. <u>G. A. Matvienko</u> and <u>M. A. Zalevski</u> . . . . .	64	11
Improved Mixing of the Sinter Charge. <u>V. G. Malinovski</u> and <u>V. M. Orobtsyev</u> . . . . .	65	12
Automatic Switching Off of the Conveyors when the chutes become Clogged with Charge. <u>L. D. Liber</u> . . . . .	66	12
Providing Safe Working Conditions in Installations Employing Gas. <u>P. G. Ushakov</u> . . . . .	67	13
 <b>STEEL</b>		
New Method for Preparing the Hearths of Electric Arc Furnaces. <u>O. I. Tishchenko</u> , <u>B. P. Okhrimovich</u> , <u>Yu. Ya. Tishkov</u> , <u>I. I. Kulakov</u> , <u>L. A. Khrustal'kov</u> , <u>P. A. Vasilevskii</u> , and <u>K. I. Pasyuk</u> . . . . .	69	15
The Use of Quartz Sand for the Rammed Lining of Steel-Teeming Ladles. <u>Yu. S. Krivchenko</u> , <u>A. P. Kudrina</u> , <u>G. F. Gul'ev</u> , and <u>E. F. Vit'</u> . . . . .	72	17
 <b>IN THE STEELMAKING SHOPS OF THE COUNTRY</b>		
Hot Top with a Two-Layer Lining. <u>F. F. Sviridenko</u> , <u>Yu. I. Kiryushkin</u> , <u>E. A. Kazachkov</u> , and <u>I. I. Lesenko</u> . . . . .	75	20
Use of Lightened Molds. <u>G. I. Burylychev</u> , <u>V. P. Kudel'kin</u> , and <u>L. G. Saksonov</u> . . . . .	75	21
Spiral Method of Bricking Steel-Pouring Ladles. <u>A. E. Eliosof</u> and <u>A. M. Ofengenden</u> . . . . .	76	21
Use of Borax for Packing Tap Holes. <u>A. V. Gusev</u> . . . . .	77	22
 <b>METALLURGY ABROAD</b>		
An Installation for Continuous Steel Teeming. <u>A. Gusovskii</u> . . . . .	79	22
 <b>NEWS, EVENTS, FACTS</b>		
The Latest in Steel Pouring . . . . .	81	24
Valuable Innovation . . . . .	81	24
Treasures of a Slag Dump . . . . .	81	24
Miniature Television Sets . . . . .	82	24
Metal Pouring is Accelerated . . . . .	82	24
 <b>ROLLING</b>		
The Rolling of Round Sections on a Continuous Mill. <u>V. Satskii</u> and <u>M. Kostyuchenko</u> . . . . .	83	25
The Renovation of a Blooming Mill. <u>E. Z. Freidenzon</u> and <u>A. I. Kalinin</u> . . . . .	85	27
 <b>IN THE COUNTRY'S ROLLING MILLS</b>		
A New Control Circuit for Cropping Strip. <u>V. Nikolaev</u> and <u>S. Kamenskii</u> . . . . .	90	32
Increasing the Service Life of Spindles. <u>E. F. Bitner</u> , <u>A. F. Lavrent'ev</u> , and <u>S. L. Belyaev</u> . . . . .	91	33
A New Safety Socket. <u>I. G. Lavrent'ev</u> . . . . .	92	33
The Lining of Pipes with Vinyl Plastic. <u>V. P. Emel'yanov</u> . . . . .	93	34
Work has become Easier. <u>K. A. Belomestnov</u> and <u>A. V. Inoshevskii</u> . . . . .	93	34
<u>A Change in the Cross Section of Billets for Sheet and Strip</u> . . . . .	94	34
A Hydraulic Tilter. <u>A. P. Trapeznikov</u> and <u>V. A. Uvarov</u> . . . . .	95	35
<u>A Giant Mill in Action</u> . . . . .	96	36
 <b>NEW BOOKS . . . . .</b>		
	97	40

# METALLURGIST

A translation of METALLURG

Published by  
the Board of Governors of Acta Metallurgica.  
Distributed by Consultants Bureau

CONSULTANTS BUREAU ENTERPRISES, INC.  
227 West 17th Street, New York 11, N. Y.

Numbers 3-4

March-April, 1963

## CONTENTS

	P A G E
	ENG.   RUSS.
<b>NUMBER 3, 1963</b>	
All Efforts Toward Increasing Labor Productivity. <u>V. Podzerko</u> . . . . .	99 1
The Operation of Blast-Furnace Air Heaters with Dilution by Preheated Blast. <u>E. M. Gol'dfarb and L. V. Legavets</u> . . . . .	102 3
An Insert Trough for the Main Furnace Gutter. <u>G. I. Lizunov</u> . . . . .	105 5
The Treatment of Reverse Water of the Purification Cycle with Stack Gases. <u>D. Krasnozhen</u> . . . . .	106 6
Safe Attendance of Blast-Furnaces and of the Air Blowers (Upon Sudden Cessation of the Supply of Blast to the Furnace). <u>F. I. Orzhekhevskii</u> . . . . .	109 9
<b>STEEL</b>	
Let Us More Widely Adopt the Production of Semikilled Steel. <u>D. L. Litvinenko</u> , <u>P. M. Shchastnyi, and V. I. Yakushin</u> . . . . .	110 10
Kuznetsk Metallurgical Combine. <u>A. N. Vasil'ev, I. E. Podynogin, and N. S. Yudin</u> . . . . .	113 14
Petrovskii Plant. <u>E. I. Evstaf'ev and P. S. Rubinskii</u> . . . . .	116 16
Makeevka Metallurgical Plant. <u>R. Z. Élimelakh and N. P. Mershchii</u> . . . . .	117 17
Letter to the Editor. <u>G. Davydenko</u> . . . . .	120 20
Explorers of High-Speed Steelmaking. <u>V. Malysh</u> . . . . .	121 21
Third Plenum of the Scientific Technical Department of Ferrous Metallurgy. <u>A. L. Novikov</u>	124 23
<b>ROLLING</b>	
The Rolling of Angles on a Continuous Small-Section Mill. <u>V. A. Satskii and M. I. Kostyuchenko</u> . . . . .	126 24
Improving the Plastic Properties of High Chromium Steels. <u>G. A. Khasin, N. A. Ermanovich, and K. N. Pribytkova</u> . . . . .	129 27
The Wide Introduction of Rolling to Negative Tolerances. <u>M. P. Popov</u> . . . . .	132 29
Planning and Calculation of the Work of Rolling Mills. <u>M. M. Shapiro</u> . . . . .	133 31
<b>IN THE ROLLING SHOPS OF THE COUNTRY</b>	
Roller Tearing Machine. <u>Yu. I. Baranov, N. L. Kostousov, and V. A. Minyaev</u> . . . . .	135 32
Roller Guides on the Cutting Unit. <u>V. P. Emel'yanov</u> . . . . .	136 32
Clamps for Stripping and Removing Ingots. <u>V. A. Minyaev</u> . . . . .	136 33
An Improvement of Working Conditions in the Rolling Shops of the Severskii	

(Continued)

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

## CONTENTS (continued)

RUSS.  
PAGE PAGE

	RUSS.	PAGE
<i>Metallurgical Plant.</i> <u>P. Zudov</u> . . . . .	137	34
<i>The Fires of a Young Plant.</i> <u>V. Nazarov</u> . . . . .	140	36
<i>In the Stock of the Seven-Year Plan.</i> <u>I. Saranskikh</u> . . . . .	142	37
<i>Chronicle, Events, Facts</i> . . . . .	145	39
NUMBER 4, 1963		
<i>Results of the Twenty-Year Plan.</i> <u>I. A. Lubenets</u> . . . . .	148	1
<i>Toward Communist Labor.</i> <u>E. Kherebtov and I. Trofimov</u> . . . . .	151	4
<i>They Were First.</i> <u>E. I. Degtyarev and I. T. Orlov</u> . . . . .	153	5
<i>More Active Participation in Industrial Management (Some Results of the Work of the Continuously Active Industrial Councils).</i> <u>A. Sukhanov</u> . . . . .	154	6
IRON		
<i>Production of Blast-Furnace Ferrosilicon.</i> <u>P. G. Lukin, Yu. A. Popov, and A. K. Shaposhnikov</u> . . . . .	157	8
<i>Increasing the Period of Service of the Rotors of the Exhaust Fans.</i> <u>E. P. Lyskov and V. A. Dronyaev</u> . . . . .	160	11
<i>The Design of the Blast-Furnace Well (Contribution to the Discussion on the Design and Durability of the Hearth and Well of Blast-Furnaces).</i> <u>A. A. Razumov</u> . . . . .	161	12
<i>Millionaire.</i> <u>B. F. Battalov and S. P. Nekipelov</u> . . . . .	163	14
STEEL		
<i>Increasing Open-Hearth Productivity.</i> <u>G. I. Evchenko and M. V. Terent'ev</u> . . . . .	165	16
<i>Economies in Chromium in the Production of Chrome Steels.</i> <u>O. Ya. Vainshtein, V. G. Denisov, V. A. Khryukina, and M. L. Shul'kin</u> . . . . .	167	18
<i>The Melting of Stainless Steel in Large-Capacity Electric Furnaces.</i> <u>I. Ya. Loiberg and S. T. Ushakov</u> . . . . .	168	19
<i>Electromagnetic Stirring in the Melting of Stainless Steel in Electric Furnaces.</i> <u>E. I. Moshkevich, A. N. Porada, and V. P. Akulov</u> . . . . .	171	22
<i>Commissioning an OKB-571-B Vacuum Induction Furnace.</i> <u>N. A. Tulin, N. P. Pozdeev, M. A. Yartsev, A. B. Sergeev, L. A. Zhivichkin, and Yu. A. Gaiduk</u> . . . . .	174	24
<i>Use of Ground Powder in the Repair of Open-Hearth Furnace Bottoms.</i> <u>M. G. Bryunetkin, A. N. Giss, I. N. Kicha, V. S. Shotin, and V. F. Kropachev</u> . . . . .	176	27
ROLLED GOODS		
<i>High-Accuracy Rolling.</i> <u>L. D. Kossovskii</u> . . . . .	179	30
<i>The Latest in Rolling Mill Units at the Chelyabinsk Metallurgical Plant.</i> <u>L. V. Lebedeva</u> . . . . .	180	31
<i>Heroes of Our Time.</i> <u>S. Sokolov</u> . . . . .	183	34
<i>Operation of Continuous Rod Mills at Soviet Plants.</i> <u>N. V. Litovchenko</u> . . . . .	186	36
<i>The Urgent Problem of Metallurgists is the Constant Improvement of Working Conditions.</i> <u>N. Anufrienko</u> . . . . .	190	39
<i>Another Look at Esthetics in Industry.</i> <u>S. Pevzner</u> . . . . .	191	40

# METALLURGIST

A translation of METALLURG

Published by  
the Board of Governors of Acta Metallurgica.  
Distributed by Consultants Bureau

CONSULTANTS BUREAU ENTERPRISES, INC.  
227 West 17th Street, New York 11, N.Y.

Numbers 5-6

May-June, 1963

## CONTENTS

	P A G E
	ENG.   RUSS.
NUMBER 5, 1963	
Development of Oxygen-Converter Production of Steel. <u>I. I. Bornatskii</u> <u>and N. A. Tereshchenko</u> .....	193 1
IRON	
On the Efficient Design of the Hearth and Well of Blast Furnaces, <u>A. N. Spektor and E. N. Yarkho</u> .....	196 3
Organization of Work in a Blast Furnace Mill in which Iron is Tapped Ten Times per Day. <u>G. I. Lizunov</u> .....	198 4
A Compound Nozzle for the Gun which Closes the Iron Tap Hole. <u>V. F. Pashinskii</u> .....	200 7
STEEL	
Intensifying Operation of the Open-Hearth Furnace. <u>V. A. Kudrin, Yu. M. Nechkin,</u> <u>and B. P. Nam</u> .....	201 8
The Rate of Solidification and Depth of the Liquid Phase in a Continuous Ingot of Low- Carbon Rimming Steel. <u>G. M. Itskovich, N. I. Sautkin, and A. V. Larin</u> .....	203 10
Rapid Packing of New Floors. <u>V. L. Varshavskii and I. A. Bedrik</u> .....	206 13
The Packed Floor of the 190 ton Open Hearth Furnace. <u>Yu. Ya. Tishkov,</u> <u>V. F. Krestyaninov, and P. A. Vasilevskii</u> .....	207 13
All Steel Workers Might Work Like This. <u>Z. N. Sarukhanyan</u> .....	210 16
Increasing the Durability of the Molds. <u>V. N. Domoradskii</u> .....	211 17
ROLLING	
Increasing the Productivity of a 1200-mm Continuous Mill. <u>P. I. Polukhin,</u> <u>V. A. Nikolaev, L. V. Radyukevich, Yu. D. Zheleznov, and V. P. Polukhin</u> .....	212 18
Electric Welded Stainless Tubing Replaces Seamless. <u>V. I. Gapich and G. D. Duplii</u> .....	213 19
Groove Design with Linked Combined Diamond Grooves. <u>Ya. I. Molodanov</u> .....	216 22
Guide Equipment for Continuous Billet Mills. <u>V. P. Fedin and Yu. G. Ivanov</u> .....	218 23
The Production of Double Layer Sheet. <u>I. D. Lomachenko and D. P. Sherle</u> .....	222 27
An Increase in the Surface Quality of Hot-Rolled Strip. <u>M. A. Benyakovskii,</u> <u>O. A. Mel'nikov, L. N. Chukhlova, and S. K. Glukhov</u> .....	223 28

(Continued)

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

## CONTENTS (continued)

	RUSS. PAGE	PAGE
<b>The Quality of Trimming Strip Edges. <u>N. A. Troschenkov, V. T. Tilik,</u> and <u>V. S. Movshovich</u> . . . . .</b>	224	29
<b>Pneumatic Balancer for the Spindles of Tube-Rolling Mills. <u>A. F. Krisanov</u> . . . . .</b>	225	29
<b>Ejector for Straightening Machines. <u>P. D. Nepechii and S. A. Vol'skii</u> . . . . .</b>	226	30
<b>Technical Creativity of the Petrov Metallurgists. <u>V. Malyi</u> . . . . .</b>	227	31
<b>Frontiers of the Seven-Year Plan. <u>I. S. Deryugin</u> . . . . .</b>	228	32
<b>Let Us Mobilize Reserves. <u>P. Gavshin and P. Bychek</u> . . . . .</b>	230	33
<b>Achievements of the Metallurgists of the Urals. <u>E. Filisteev</u> . . . . .</b>	231	33
<b>Laboratory for Labor Protection and Safety Techniques at the Nizhni Tagil Metallurgical Combine. <u>S. V. Baraev</u> . . . . .</b>	231	34
<b>Intensification of the Fight with Industrial Noise. <u>A. G. Rakhmilevich</u> . . . . .</b>	233	35
<b>Chronicle, Events, Facts . . . . .</b>	235	36
<b>The Introduction of the International System of Units in the USSR. <u>V. Korotkov</u> . . . . .</b>	236	37
<b>Chronicle, Events, Facts . . . . .</b>	239	39
<b>NUMBER 6, 1963</b>		
<b>The Principal Trend. <u>V. A. Gerasimenko</u> . . . . .</b>	242	1
<b>IRON</b>		
<b>Mechanized Storage of Raw Materials in Blast Furnace Mills and Sintering Plants.</b>		
<u>S. D. Samoilovich</u> . . . . .	246	4
<b>Automation of the Process of Sintering Agglomerate. <u>M. M. Korrovskii,</u> <u>N. N. Urumbeglik</u>, and <u>V. A. Chernikov</u> . . . . .</b>	249	8
<b>Mechanization of Agglomerate Sampling. <u>A. D. Beisbein</u> and <u>B. M. Rotmistrovskii</u> . . . . .</b>	252	10
<b>Gravimetric Autodosage of the Components of the Sinter Charge.</b>		
<u>A. Ya. Ivanenko and V. I. Chekurov</u> . . . . .	253	11
<b>A Modernized Optical-Acoustical Gas Analyzer. <u>V. I. Mikhailenko</u> . . . . .</b>	254	12
<b>STEEL</b>		
<b>Automation of the Thermal Regime of Open Hearth Furnaces by the Use of Alpha-Indicators</b>		
<u>V. S. Zhuravlev, I. L. Podkovyrkin, P. P. Semenenko, Yu. N. Tuluevskii,</u> <u>V. G. Tyulebaev</u> , and <u>M. L. Chekanovskii</u> . . . . .	255	13
<b>Programming and Automation of the Control of Steelmaking in the Arc Furnace.</b>		
<u>V. M. Vinogradov, Yu. E. Efroimovich, A. F. Kablukovskii, and V. I. Simonov</u> . . . . .	257	15
<b>The Use of Oxygen Consumption Integrators in the Converter Shop</b>		
<u>Yu. N. Pogrebnoi, D. I. Turkenich, and Yu. S. Krivchenko</u> . . . . .	260	18
<b>Mechanization of the Delivery of Deoxidizers to the Pouring Ladles of the Open-Hearth Shop.</b>		
<u>A. D. Veisbein and B. D. Rotmistrovskii</u> . . . . .	262	20
<b>ROLLING</b>		
<b>Modern Rolling Mills and Their Equipment. <u>G. L. Khimich and A. V. Tret'yakov</u> . . . . .</b>	264	22
<b>An Increase in the Productivity of the Three High Mill <u>A. D. Veisbein,</u> <u>E. A. Demidovich, and B. M. Rotmistrovskii</u> . . . . .</b>	267	25
<b>Mechanization and Automation of the Tube Rolling Unit. <u>S. A. Sharadzenidze,</u> <u>I. G. Mindlin, D. A. Shalygin, and P. A. Tsereteli</u> . . . . .</b>	269	27
<b>A Computer Calculates the Rolling Parameters. <u>L. V. Andreyuk and I. S. Litvak</u> . . . . .</b>	271	29
<b>Mechanization of the Delivery of Sheet for Galvanizing. <u>E. S. Puzatov</u> . . . . .</b>	273	31
<b>Modernization of the Automatic Holding Device for Billets. <u>E. V. Lovchinovskii,</u> <u>A. P. Sichevoi, and F. K. Ivanchenko</u> . . . . .</b>	274	32
<b>Magnetic Relayer for Sheet Bars. <u>Yu. I. Baranov, N. P. Kostousov, A. A. Minyaev,</u> <u>and S. P. Shirikov</u> . . . . .</b>	275	33

## CONTENTS (continued)

	RUSS. PAGE	PAGE
Greater Attention to Problems of Automation. <u>D. F. Gladkii</u> . . . . .	276	34
The Best Innovator of the Control and Measuring Instrument and Automation Shop. <u>E. K. Zhuravlev and V. F. Solov'ev</u> . . . . .	278	35
Every Third One, an Innovator. <u>P. Ya. Tatarinov</u> . . . . .	281	37
The More Metal, the Richer the Motherland. <u>G. V. Opukhovskaya</u> . . . . .	282	37
The Experience of the Railroad Shop of the Nizhne-Tagil Metallurgical Combine. <u>N. M. Val'vach</u> . . . . .	283	38
Chronicle, Events, Facts . . . . .	285	40

The article on pages 6-7 (Issue No. 5) of the Russian original has not been translated since it contains information of a nontechnical nature.

# METALLURGIST

*A translation of METALLURG*

Published by  
the Board of Governors of Acta Metallurgica.  
Distributed by Consultants Bureau

CONSULTANTS BUREAU ENTERPRISES, INC.  
227 West 17th Street, New York 11, N. Y.

Numbers 7-8

July-August, 1963

## CONTENTS

	P A G E
	ENG.   RUSS.
NUMBER 7, 1963	
The Striving of the Metallurgists to Utilize Reserves. <u>M. A. Pertsev</u> . . . . .	289 1
IRON	
On the Formation of a "Bed" when Sintering Iron Ores. <u>V. I. Korotich</u> . . . . .	293 6
Blast-Furnace Operation with the Utilization of Coal Oil. <u>Yu. A. Lekontsev</u> <u>and V. S. Nechaev</u> . . . . .	295 8
Increasing the Durability of the Blast-Furnace Well (Contribution to the Discussion of the Design and Durability of the Hearth and Well of Blast-Furnaces). <u>S. M. Andon'ev, O. V. Filip'ev, and G. A. Kudinov</u> . . . . .	296 9
The Work of the Calkers. <u>I. Yu. Maksyuk</u> . . . . .	299 12
Chronicle, Events, Facts . . . . .	302 14
Intensification of Production of Structural and Tool Steels. <u>Yu. K. Vorob'ev</u> <u>and V. I. Simonov</u> . . . . .	304 15
Improvement of Certain Elements of the Open-Hearth Furnace. <u>A. M. Svistunov</u> , <u>A. N. Beitel'man, I. Ya. Ivashchenko, and S. F. Shatunov</u> . . . . .	306 17
Working Experience with Units for Continuous Steel Casting. <u>D. I. Popov</u> . . . . .	308 19
LETTERS TO THE EDITOR	
Generalization of Experience in the Manufacture of Crystallizers. <u>A. F. Karmishkin</u> . . . . .	312 22
Removal of Ingot Feeder Head. <u>G. I. Korotkov, V. G. Kucherenko, A. E. Zakharov</u> , <u>T. M. Ovsyannikova, and M. I. Pankov</u> . . . . .	313 23
Reconstruction of the Railroad Crane . . . . .	314 23
ROLLED GOODS	
Rolling of Heavy-Weight Ingots on the Slab Mill. <u>L. V. Andreyuk</u> . . . . .	315 24
Delivery of Railroad Rails by Theoretical Weight (On the Order of a Discussion). <u>E. A. Demidovich and M. D. Aizenshtein</u> . . . . .	318 27
Quality of Steel for Cold Heading. <u>A. N. Gladkikh and B. A. Stetsenko</u> . . . . .	320 29
The Working Experience of the Operators of the 650 Mill at the Nizhne-Tagil Metallurgical Combine. <u>V. I. Mitin</u> . . . . .	322 31
The Hands of the Rolling Mill Operator. <u>A. Sergienko</u> . . . . .	324 33

(Continued)

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

## CONTENTS (continued)

	P A G E	E N G .   R U S S .
The Latest and Most Advanced in Production. <u>N. Olenich</u> .....	326	34
Innovators of a Young Plant. <u>N. Dunaeva</u> .....	328	35
Research. <u>M. Romashchenko</u> .....	330	37
Revolving Semigantry Beam Crane. <u>V. Sheftolovich</u> .....	333	39
 NUMBER 8, 1963		
Thirtieth Anniversary of the Plant "Azovstal'." <u>V. V. Leporskii</u> .....	336	3
 IRON		
The Use of Chalky Lime to Intensify the Sintering Process. <u>A. V. Rostemberskii</u> , <u>A. I. Soldatkin</u> , and <u>N. P. Zaporozhets</u> .....	339	5
The Effect of the Working Profile of the Blast-Furnace on the Distribution of Gas Streams. <u>V. I. Kholzakov</u> , <u>V. P. Bratchenko</u> , <u>M. Ya. Ostroukhov</u> , <u>P. G. Lukin</u> , and <u>L. Ya. Gavril'yuk</u> .....	341	6
New Construction of the Charge Distributor. <u>A. I. Dikalov</u> , <u>A. V. Leonova</u> , and <u>D. A. Storozhik</u> .....	344	9
On the Reasons for the Air Heaters Getting Out of Order. <u>V. N. Troitskii</u> , <u>P. E. Nakhaev</u> , <u>A. I. Smorodin</u> , and <u>G. B. Betemblyum</u> .....	346	11
 STEEL		
Reducing the Sulfur Content of Electric Steel. <u>G. I. Antipenko</u> .....	348	13
A Technology for Producing Stainless Machine Steel Containing Selenium. <u>V. V. Nagovitsin</u> and <u>V. P. Taratynov</u> .....	350	15
Slag Removal during the Melting Period. <u>B. A. Rogulev</u> .....	352	17
The Optimum Charge in Open-Hearth Furnaces. <u>N. K. Solomakha</u> .....	353	17
Our Experience with Floor Repairs. <u>S. T. Shekhovtsov</u> .....	353	18
Vacuum Treatment of Steel in the Ladle While Blowing with Inert Gases. <u>N. M. Chuiko</u> and <u>V. B. Rutkovskii</u> .....	355	19
More Extensive Introduction of Continuous Processes. .....	358	22
 ROLLED GOODS		
Increase in the Diameter of Wire Rod for Rod Mills. <u>G. M. Fomin</u> , <u>L. Ya. Lapshin</u> , and <u>A. L. Tarnavskii</u> .....	360	24
Increase in the Diameter of Wire Rod for Rod Mills (Continued). <u>I. S. Kagan</u> and <u>V. S. Chernikhov</u> .....	362	25
Efficient Reduction Conditions on the Wide-Strip 2500 Mill. <u>V. P. Polushkin</u> .....	363	26
Durability and Operation of Rolling-Mill Rolls. <u>N. A. Troshchenkov</u> and <u>Yu. M. Mirenskii</u> ..	365	28
Surfacing of Rolls with Hard Alloys. <u>V. A. Sokolov</u> , <u>A. N. Novikov</u> , and <u>P. M. Morozov</u> ..	367	29
A New Method for Setting Up Rolling-Mill Rolls. <u>M. L. Mirenskii</u> .....	368	30
Convex Back-up Rolls on the Levelling Mill. <u>V. P. Emel'yanov</u> .....	369	31
Increasing the Life of Rolls.....	370	31
Reconstruction of the Electropneumatic Distributors. <u>A. F. Krisanov</u> and <u>L. L. Khaikov</u> .....	371	32
A New Unique Mill. <u>P. Ya. Tatarinov</u> .....	372	33
Persons with an Inquisitive Mind. <u>N. Balabin</u> and <u>N. Romanov</u> .....	373	34
Man of Creative Work: <u>V. Malyi</u> .....	376	36
Freak of Nature. <u>A. Fedorov</u> .....	377	37

## **CONTENTS** (continued)

**P A G E**  
**ENG. | RUSS.**

### **NEW BOOKS**

A Valuable Manual. P. A. Kachan and V. V. Kurganov .....	380	38
A. F. Tregubenko .....	381	39

The articles on pages 4-5 (Issue No. 7) and pages 1-2, 20  
(Issue No. 8) of the Russian original have not been trans-  
lated since they contain information of a nontechnical  
nature.

# METALLURGIST

*A translation of METALLURG*

Published by  
the Board of Governors of Acta Metallurgica.  
Distributed by Consultants Bureau

CONSULTANTS BUREAU ENTERPRISES, INC.  
227 West 17th Street, New York 11, N.Y.

Numbers 9-10

September-October, 1963

## CONTENTS

	P A G E
	ENG.   RUSS.
<b>NUMBER 9, 1963</b>	
On the Further Increase of Labor Productivity in Ferrous Metallurgy. <u>S. M. Filippov</u> . . . . .	385 1
<b>PIG IRON</b>	
Analysis of the Operation of Blast-Furnace Mills of the Pridneprov'e Sovharkhoz Working at Various Levels of Forcing. <u>N. N. Chernov and I. T. Tkach</u> . . . . .	390 4
Improvement of the Equipment at the Mouth of Blast-Furnaces. <u>M. I. Kuznetsov, I. I. Petrov, and A. I. Soskov</u> . . . . .	396 9
Toward More Iron. <u>Yu. L. Pamyatnykh</u> . . . . .	400 13
<b>STEEL</b>	
The Thermal Regime of the Leading Furnace of the MMC. <u>A. G. Trifonov, Yu. B. Snegirev, and E. V. Val'piter</u> . . . . .	403 16
Each Worker Has His Reserve! . . . . .	408 21
An Increase in the Output of Converters and the Service Life of their Lining. <u>I. N. Varnavskii, G. N. Kamyshev, N. P. Izotov, and O. P. Bolotov</u> . . . . .	412 26
<b>ROLLED PRODUCTS</b>	
Experience from Operating the Slabbing Mill at the "Zaporozhstal" Plant. <u>F. Dolmatov and A. Komanovskii</u> . . . . .	415 28
An Increase in the Productivity of Labor in the Production of Stainless Steel and Alloys. <u>A. Romanov</u> . . . . .	417 30
Experience of Rolling Shapes SVP-17 and 27 with an Increased Wall Slope. <u>N. F. Protasov, V. E. Stefanov, V. P. Demchenko, V. A. Shyan, and P. D. Krishtafovich</u> . . . . .	419 31
Roll-Pass Design and Rolling of Special Angle No. 18-187A. <u>B. M. Ilyukovich</u> . . . . .	422 34
Rational Characteristics of Polishing Wheels for Conditioning High-Alloy Steels. <u>A. V. Murdasov and V. K. Pasechnik</u> . . . . .	423 35
A Device for Compensating Misalignment of the Rolls on a Blooming Mill. <u>L. V. Andreyuk and M. I. Igon'kin</u> . . . . .	424 36

(Continued)

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

# CONTENTS (continued)

PAGE	RUSS. PAGE
------	---------------

## NUMBER 10, 1963

### PIG IRON

Sintering Agglomerate with Varying Content of Anthracite Culm in the Fuel. <u>L. M. Freidin, L. M. Rudakov, and I. I. Gorstein</u> . . . . .	428	3
The Regime of Release of Smelting Products and the Processes of Desulfurization in the Hearth. <u>G. A. Volovik, I. G. Polovchenko, and A. N. Chechuro</u> . . . . .	430	4
Desulfurization of Iron Outside the Furnace. <u>V. A. Dolmatov and A. B. Golovatskii</u> . . . . .	434	8
Increasing the Durability of the Charging Apparatus. <u>A. I. Dikalov, A. V. Leonova, and D. A. Storozhik</u> . . . . .	435	10
Improving the Operation of Superpower Blast-Furnaces. <u>A. Gusovskii</u> . . . . .	438	12
Chronicle, Events, Facts. New Deposits . . . . .	439	13

### STEEL

Working Open-Hearth Steel in the Ladle with Molten Synthetic Slag. <u>I. E. Podynogin</u> . . . . .	440	14
Accelerated Teeming of Rimming Steel. <u>A. N. Vasil'ev and S. I. Bogachev</u> . . . . .	442	16
Preventing Ejections of Metal and Slag from the Converter. <u>M. M. Zin'kovskii</u> . . . . .	444	18
Increasing the Durability of the Lining of the Troughs Used in the Tapping of Steel. <u>L. G. Kutsenko</u> . . . . .	445	18
Masonry of Dolomite Blocks for Open-Hearth and Electric Furnaces. <u>A. Lekhtik</u> . . . . .	446	19
Everything New Born in Labor Goes Into Production. <u>G. V. Plechun</u> . . . . .	448	20
News Items, Events, Facts . . . . .	450	23

### ROLLED PRODUCTS

Radio-Frequency Welding of Straight-Seamed Tubes on the 6-32 Mill. <u>A. T. Konyushenko, R. V. Golovkin, V. Ya. Gol'berg, and E. D. Orlov</u> . . . . .	451	24
Mastering the Production of Economic Types of Welded Tubes. <u>N. Rozenfel'd</u> . . . . .	453	26
Reconstruction of the Ceramic Recuperators of Soaking Pits. <u>E. A. Kudrin, A. P. Likhoradov, M. S. Kruskal', and A. I. Babanin</u> . . . . .	455	29
Durability of Long Mandrels on the Continuous 7-Stand Mill. <u>A. V. Nikolenko</u> . . . . .	458	31
New Method of Drying Wire in Coils. <u>V. I. Donets</u> . . . . .	458	32

### FOR LABOR SAFETY

The Working Experience of the Labor Protection Commission. <u>A. Izmailov and L. Belotserkovskii</u> . . . . .	460	34
--	-----	----

### CREATIVE THINKING

Life Requires This. <u>A. Ishmatov</u> . . . . .	462	35
--	-----	----

### FROM THE HISTORY OF TECHNOLOGY

Certain Stages in the Development of World Converter Production. <u>V. B. Yakovlev</u> . . . . .	466	38
--	-----	----

### NEW BOOKS

Ways to Reduce the Manufacturing Cost of Rolled Products by <u>B. P. Bel'gol'skii, I. A. Medvedev, and A. L. Starosel'skii</u> . Reviewed by <u>M. Reznikov</u> . . . . .	469	39
---	-----	----

# METALLURGIST

A translation of METALLURG

Published by  
the Board of Governors of Acta Metallurgica.  
Distributed by Consultants Bureau

CONSULTANTS BUREAU ENTERPRISES, INC.  
227 West 17th Street, New York 11, N. Y.

Numbers 11-12

November-December, 1963

## CONTENTS

PAGE  
ENG. | RUSS.

### NUMBER 11, 1963

#### IRON

Modernization of the Equipment of the Sintering Plant. D. P. Pritykin . . . . .	473	4
Improving the Production of Conversion Iron. E. Nolkunov and A. Volovik . . . . .	476	7
Certain Questions on Blast-Furnace Operation. M. A. Katsnel'son . . . . .	479	10

#### STEEL

Increasing the Production Capacity of Open-Hearth Furnaces. G. L. Gurskii and K. M. Trubetskoy . . . . .	483	13
Fast Top Pouring of Rimming Steel into Molds with Ribbed Sides. E. A. Efimov, V. N. Sapko, V. P. Grebenyuk, É. Ch. Pioro, P. M. Shchastnyi, F. A. Ksenzuk, D. I. Shirinskii, and V. I. Tolstykh . . . . .	487	17
The Service of Refractories in an Open-Hearth Department. E. I. Koval'chuk . . . . .	489	19

#### ROLLED PRODUCTS

Reconstruction of a Slabbing Mill and Increase in the Production of Slabs. F. M. Dolmatov, F. A. Evtushenko, and Yu. V. Zagorulko . . . . .	492	22
Experience in the Production of Large Transformer Sheets. V. G. Borisenko . . . . .	495	24
Increase in the Production of Cold-Bent Rolled Sections. A. A. Naidenov, V. A. Garnerstein . . . . .	496	25
Reconstruction of a 1680-mm Continuous Cold-Rolling Mill. M. I. Yudin, A. Z. Komandovskii, and N. A. Troshchenkov . . . . .	498	28
Man of Inquisitive Mind. M. Yanchuk . . . . .	501	31
Improvement in Product Quality. V. V. Viranovskii and A. A. Podgrodetskii . . . . .	502	32
Organization of Production Administration at the Plant. E. E. Bermant and V. S. Vasil'chenko . . . . .	504	34
Planning Production Costs. S. Zlobinskii . . . . .	506	35
Community Forms of Work at the Plant. V. Litvinenko . . . . .	507	35
Aleksandr Vasil'evich Leskov . . . . .	508	37
Chief Metallurgist of the Soviet Union. I. P. Bardin . . . . .	509	38
News Items, Events, Facts . . . . .	512	40

(Continued)

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

## CONTENTS (continued)

PAGE  
ENG. | RUSS.

### NUMBER 12, 1963

The Scope of the Chemical Industry. <u>V. P. Bibishev</u> . . . . .	516	1
IRON		
Service of the Rotors in the 6500-II-1 Exhausters. <u>N. E. Orlov</u> . . . . .	518	3
Two Years Experience in the Operation of Blast-Furnaces with the Blowing of High-Sulfur Coal Oil. <u>K. V. Malikov, V. L. Pishvanov, E. I. Andreev, V. I. Ryn'kov, and P. I. Semavin</u> . . . . .	521	5
On the Design of the Blast-Furnace Well. <u>L. M. Orechkin</u> . . . . .	526	8
Increasing the Temperature of the Blast. <u>I. L. Kordabnev</u> . . . . .	528	9
Bakal Siderites—Precious Metallurgical Raw Material. <u>P. Mineev</u> . . . . .	530	12
STEEL		
Smelting and Continuous Casting of 20 Steel into 280 X 320-mm Billets. <u>O. V. Martynov, V. N. Ustyuzhanin, L. S. Nechaev, and S. M. Gorlov</u> . . . . .	532	13
Improvements in the Teeming of Killed Steel. <u>P. M. Shchastnyi, V. I. Yakushin, and V. I. Shor</u> . . . . .	535	15
Work Organization in the Teeming Bay. <u>S. P. Romanenko</u> . . . . .	537	17
Modernization of the Transformers for the 5-Ton Electric-Arc Furnaces. <u>V. P. Tsukanov</u> . . . . .	538	18
Production of Semikilled Steels in Indian Plants. <u>S. N. Bystrov</u> . . . . .	539	19
Energy Losses in Arc Furnaces. <u>E. F. Mazurov</u> . . . . .	541	20
ROLLED GOODS		
Adoption and Production of 25-m Railway Rails. <u>M. D. Fradin and A. V. Chernova</u> . . . . .	543	22
Production of Wire Rod from High-Speed Steel. <u>B. I. Zarochentsev and V. K. Likhov</u> . . . . .	546	24
New Heating Furnace Designs Abroad. <u>I. I. Lever</u> . . . . .	548	27
Forum of Young Metallurgists. <u>Ya. Brodskii</u> . . . . .	551	33
NEW BOOKS . . . . .		
Author Index, 1963. . . . .	561	
Tables of Contents, 1963. . . . .	569	

The articles on pages 29-33 (Issue No. 12) of the Russian original have not been translated since they do not contain any information of a technical nature.

